

# The Impact of Business Climate on Foreign Direct Investment in the CEMAC Region

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#### Abstract

Globally, Foreign Direct Investment (FDI) is often seen as an important catalyst for economic growth because it affects economic growth by stimulating domestic investment, capital formation, employment, export earnings and technological transfer. As a result, policy makers of most economies especially non-natural resource rich economies have undertaken socio-economic, legal, political and institutional reforms in order to attract foreign direct investment. This study examines the impact of the business climate on foreign direct investment in the Economic and Monetary Union of Central African States (CEMAC) region from 2007 to 2014 using panel data collected from the World Bank, the United Nations Conference on Trade and Development (UNCTAD), Transparency International, the Heritage Foundation and the Mo Ibrahim Foundation. Through the adoption of the Feasible Generalized Least Squares (FGLS) technique of estimation, the study finds that the doing business index, the corruption perception index and the Ibrahim Index of African Governance positively and significantly affect foreign direct investment in the CEMAC region. Moreover, the study finds that some components of the Doing Business Index (starting a business, dealing with construction permits, registering property, paying taxes, protecting investors, trading across borders, enforcing contracts and resolving insolvency) positively and significantly affect foreign direct investment in the CEMAC region. However, economic freedom index and other components that constitute the Doing Business Index (registering property, getting credit and trading across borders) though with positive coefficients do not significantly affect foreign direct investment. The study recommends that policymakers of the CEMAC region put in place laws, measures and structures that improve the business climate of the region in a bid to attract more foreign direct investment.

**Keywords**: Business Climate, Foreign Direct Investment, CEMAC, Feasible Generalized Least Squares.

#### 1. Introduction

Foreign direct investment (FDI) is an important catalyst for economic growth in developing countries because it affects economic growth by stimulating domestic investment, capital formation, employment, export earnings and technological transfer (Forgha, 2009). Likewise, Khan and Bamou (2007) assert that foreign direct investment has emerged as the most important source of external resource flows to developing countries over the years and has become a significant part of capital formation in these countries. According to statistics obtained from UNCTAD (2015), the global distribution of foreign direct investment (FDI) inflows in million US Dollars over the decade is given by the table below;

Table 1: Global Distribution of FDI (2004 to 2014) in million US Dollars

| - | 1 W 1 C 1 C 1 C 1 C 1 C 1 C 1 C 1 C 1 C |           |           |            |         |           |       |  |  |
|---|---|-----------|-----------|------------|---------|-----------|-------|--|--|
| Г | Year                                    | World     | Developed | Developing | Europe  | Africa    | CEMAC |  |  |
|   |   |           | Countries | Countries  |         |           |       |  |  |
|   | 2004                                    | 737,681.6 | 423,905.2 | 284,618.9  | 201,485 | 17,261.42 | 1095  |  |  |
|   | 2014                                    | 1 228 283 | 498 784   | 681 387    | 288,789 | 53,912    | 4673  |  |  |

Source: UNCTAD (2015)

From table 1 above, it is observed that there has been a massive global increase in FDI flows. However, even though Africa has witnessed a sharp rise in FDI flows by 212% over the last decade, it is still lagging behind in FDI inflow when compared to Europe. This is rather surprising because it is expected that since Africa has relatively a larger and more diversified stock of natural resources than Europe, it is expected that Africa would attract more FDI flows than Europe. This puzzle can be explained by the fact that most FDI flows in Africa have diversified into the manufacturing and tertiary sectors. Because of this gradual shift in interest, it is incumbent that most African countries work hard to improve on their business climate and not just rely on their natural resource endowment so as to attract foreign direct investment (Ajayi, 2006). For instance, governments of the CEMAC region have put in place structures that are tasked with improving the business climate of their respective economies in a bid to attract foreign direct investment (Economic Commission for Africa, 2014). Such structures include the Investment Promotion Agency in Cameroon, the National Agency for Investment and Export Promotion Agency in Gabon.

Despite the efforts put in place by governments of the CEMAC region, the realized results in terms of the business climate in the region are far from satisfactory as demonstrated by global business climate indicators such as the Doing Business Index Report published by the World Bank, the Economic Freedom Index Report published



by the Heritage Foundation in collaboration with the Wall Street Journal, the Corruption Perception Index Report published by Transparency International and the Ibrahim Index of African Governance Report published by the Mo Ibrahim Foundation. All of these indices are evaluated on a score of 0 to 100 (with 0 been the worst score and 100 the best score). The indices for the CEMAC region are shown on table 2 below;

Table 2: Business Climate Indices for the CEMAC region (2007-2014) (0 for worst score and 100 for best score)

| Year | Doing Business | Economic Freedom Index | Corruption Perception | Ibrahim Index of   |
|------|----------------|------------------------|-----------------------|--------------------|
|      | Index (DBI)    | (EFI)                  | Index (CPI)           | African Governance |
|      |                |                        |                       | (IIAG)             |
| 2007 | 35.9           | 52.2                   | 22.5                  | 50.8               |
| 2008 | 36.2           | 49.2                   | 49.8                  | 49.8               |
| 2009 | 38.6           | 49.5                   | 39.7                  | 39.7               |
| 2010 | 38.5           | 49                     | 40.1                  | 40.1               |
| 2011 | 41.8           | 48.3                   | 41.8                  | 41.8               |
| 2012 | 42             | 48.6                   | 41.6                  | 41.6               |
| 2013 | 44.1           | 48.2                   | 39.6                  | 39.6               |
| 2014 | 44.5           | 47.5                   | 39                    | 39                 |

Source: World Bank (2015), Heritage Foundation (2015), Transparency International (2015) and Mo Ibrahim Foundation (2015)

From table 2 above, it is observed that the business climate indices for the CEMAC region are unsatisfactory since most of the scores are less than the average score of 50. Particularly, over the decade, the DBI score rose only slightly from 35.9 to 44.5, the EFI score witnessed a drop from 52.2 to 47.5, the EFI score witnessed a slight improvement from 22.5 to 39 and the IIAG score witnessed a drop from 50.8 to 39.

The study also pays specific attention at observing the various components that make up the Doing Business Index (starting a business (SB), registering property (RP), paying taxes (PT), dealing with construction permits (DCP), getting credit (CRED), protecting investors (PROC), enforcing contracts (ENFC) and resolving insolvency (RESOLV). It is therefore vital to observe the performance of these doing business indices over the decade for the CEMAC region as shown by table 3 below;

Table 3: Doing Business Indices for the CEMAC region (2007 to 2014) (0 for worst score and 100 for best score)

| 2007     40.6     46.7     30.3     60.8     18.7     37.1     47.2     8.3       2008     40     53.4     30.6     66.8     18.7     36.6     44.8     11       2009     42.3     49.5     30.8     59     18.7     36.5     44.8     8.3       2010     44.8     49.4     30.4     59.6     18.7     36.6     44.8     8.3       2011     48.2     49.2     33.8     62.2     41.7     36.6     44.8     8.4       2012     50.2     47.5     32.5     66.1     42.7     36.6     44.9     8.4       2013     51.7     47.6     34.4     67.9     34.2     40.7     44.9     27. | ,   |      |      |      |      |      |      |      |        |
|--|-----|------|------|------|------|------|------|------|--------|
| 2008     40     53.4     30.6     66.8     18.7     36.6     44.8     11       2009     42.3     49.5     30.8     59     18.7     36.5     44.8     8.3       2010     44.8     49.4     30.4     59.6     18.7     36.6     44.8     8.3       2011     48.2     49.2     33.8     62.2     41.7     36.6     44.8     8.4       2012     50.2     47.5     32.5     66.1     42.7     36.6     44.9     8.4       2013     51.7     47.6     34.4     67.9     34.2     40.7     44.9     27.   |     | SB   | RP   | PT   | DCP  | CRED | PROC | ENFC | RESOLV |
| 2009 42.3 49.5 30.8 59 18.7 36.5 44.8 8.3   2010 44.8 49.4 30.4 59.6 18.7 36.6 44.8 8.3   2011 48.2 49.2 33.8 62.2 41.7 36.6 44.8 8.4   2012 50.2 47.5 32.5 66.1 42.7 36.6 44.9 8.4   2013 51.7 47.6 34.4 67.9 34.2 40.7 44.9 27.  | 007 | 40.6 | 46.7 | 30.3 | 60.8 | 18.7 | 37.1 | 47.2 | 8.3    |
| 2010 44.8 49.4 30.4 59.6 18.7 36.6 44.8 8.3   2011 48.2 49.2 33.8 62.2 41.7 36.6 44.8 8.4   2012 50.2 47.5 32.5 66.1 42.7 36.6 44.9 8.4   2013 51.7 47.6 34.4 67.9 34.2 40.7 44.9 27.  | 800 | 40   | 53.4 | 30.6 | 66.8 | 18.7 | 36.6 | 44.8 | 11     |
| 2011 48.2 49.2 33.8 62.2 41.7 36.6 44.8 8.4   2012 50.2 47.5 32.5 66.1 42.7 36.6 44.9 8.4   2013 51.7 47.6 34.4 67.9 34.2 40.7 44.9 27.  | 009 | 42.3 | 49.5 | 30.8 | 59   | 18.7 | 36.5 | 44.8 | 8.3    |
| 2012 50.2 47.5 32.5 66.1 42.7 36.6 44.9 8.4   2013 51.7 47.6 34.4 67.9 34.2 40.7 44.9 27.  | )10 | 44.8 | 49.4 | 30.4 | 59.6 | 18.7 | 36.6 | 44.8 | 8.3    |
| 2013 51.7 47.6 34.4 67.9 34.2 40.7 44.9 27.  | )11 | 48.2 | 49.2 | 33.8 | 62.2 | 41.7 | 36.6 | 44.8 | 8.4    |
|  | )12 | 50.2 | 47.5 | 32.5 | 66.1 | 42.7 | 36.6 | 44.9 | 8.4    |
| 2014 53.9 45.9 35.5 66 35.8 44 44.9 28.  | )13 | 51.7 | 47.6 | 34.4 | 67.9 | 34.2 | 40.7 | 44.9 | 27.8   |
|  | )14 | 53.9 | 45.9 | 35.5 | 66   | 35.8 | 44   | 44.9 | 28.9   |

Source: World Bank (2015)

From table 3 above, it is observed that the doing business indices are unsatisfactory since all of the indices (except dealing with construction permits) register a less than average score of 50. Also, considering the trend of performance for the indices over the decade, while the indices for registering property, paying taxes, dealing with construction permits, getting credit, protecting investors and resolving insolvency registered minimal improvements in performance, the indices for registering property and enforcing contracts witnessed a decline in performance.

This paper thus aims at examining the impact of the business climate on foreign direct investment in the CEMAC region. Specifically, the paper aims at examining the impact of business rules and regulations, economic freedom, transparency and governance on foreign direct investment in the CEMAC region. More especially, very little literature exists on the impact of the Doing Business Indices on foreign direct investment especially in the CEMAC region thereby creating a vacuum the current paper stands to fill.

The rest of the paper is structured to handle literature review, methodological issues, empirical results and policy recommendations.

#### 2. Literature Review

The principal theoretical inspiration for this study is the Portfolio Allocation Theory attributed to Fedderke (2002). According to the theory, foreign direct investment is determined by the rate of return and risk. While foreign capital flows respond positively to rates of return, it is adversely affected by risk. In simple terms, the theory seeks



to explain that investors tend to minimize business risks and maximize business returns. It is therefore imperative that Economies of the CEMAC zone put in place policies, laws and structures that minimize business risks thereby creating a conducive business environment that attracts foreign direct investment.

A number of empirical studies such as those of Ajide and Eregha (2014), Avom and Ongo (2013), Bayraktar (2013), Castro and Nunes (2013), Anyanwu (2012), Kinyondo (2012), Bissoon (2011) and Nnadozie and Njugana (2011) amongst others reveal that a more favourable business climate attracts more foreign direct investment.

Ajide and Eregha (2014) examine the relationship between economic freedom and FDI inflow in twelve countries of the Economic Community of West African States (ECOWAS) over the period 1995 to 2010. A panel data analysis was employed for the estimation in which preference was shown for fixed effects over random effects as suggested by the Hausman test. The study reveals a positive and significant impact of financial freedom on FDI while business and property right freedoms constituted drags to FDI attraction among these countries. The study recommends protection of copyright, patent and franchise rights as well as the promotion of a sound financial system environment. Similar results were obtained by Kapuria (2007) Pourshahabi et al. (2011), Asiedu (2002) and Solomon (2011).

Bayraktar (2013) investigates the link between foreign direct investment and the ease of doing business indicators. Using secondary data from the World Bank's Doing Business database covering a seven year period from 2004 to 2010, the results show that countries which have better records of "doing business" tend to attract more foreign direct investment.

Nunes and Castro (2013) examine the effect of corruption on FDI inflows in 73 countries over the period 1998 to 2008. Results from the study suggest that countries where corruption is lower tend to attract greater FDI inflows. They therefore recommend that governments should implement measures to eliminate corruption so as to attract more FDI inflows. Similar results were obtained by Al-Sadiq (2009) who also found that the control of corruption attracts more FDI.

Bissoon (2011) examines the impact of institutional quality on the attractiveness of FDI in 45 developing countries in Africa, Latin America and Asia over the period 1996-2005. Institutional indicators used are the control of corruption, the rule of law, regulatory quality, political stability and freedom of expression. Based on the technique of Ordinary Least Squares, he found that the control of corruption, sound business regulation and political stability have a positive and significant impact on FDI attractiveness. In essence, good governance would attract FDI inflow because investments cannot be protected in an environment of poor governance (Globerman and Shapiro, 2003).

Nnadozie and Njuguna (2011) investigate the relationship between investment climate and foreign direct investment in Africa. An empirical model was estimated using business regulations variable as one of the regressors among other controlled variables. All regressions were estimated using fixed-effect panel data model, which was preferred over the random-effect model based on the results of the Hausmann test. The study found evidence that sound and efficient business rules and regulations are important in attracting FDI.

# 3. Methodological Issues

Using panel data from the six CEMAC countries and drawing inspiration from the study of Nnadozie and Njugana (2011), this study uses the doing business index, the corruption perception index, the economic freedom index and the Mo Ibrahim Index of African Governance to capture the business environment. The doing business index captures the level of implementation of business rules and regulations, the corruption perception index measures the level of corruption, the economic freedom index measures the level of economic freedom and the Mo Ibrahim Index of African Governance measures the level of governance.

However, this study adopts two different random effect panel models. The first is aimed at analyzing the impact of the business climate on FDI flows into the CEMAC region and the second analyzes the impact of the various components of the doing business index on FDI flows into the CEMAC region.

The general nature of a random effect model is given as;

$$Y_{it} = \beta X_{it} + \alpha + u_{it} + \varepsilon_{it}$$

Where Y represents the dependent variable, X is the set of regressors,  $\beta$  represents parameters to be estimated;  $\varepsilon_{it}$  =Within-entity error,  $u_{it}$  =Between-entity error, it=caters for the panel structure with i = country entity and t = time.

The rationale behind the choice of the random effect model was based on the results of the Hausman test whose results show that the random effect model is more efficient than the fixed effect. This warrants the application of the Feasible Generalized Least Squares (FGLS) technique since it has an inbuilt ability to cater for heteroskedasticity and autocorrelation.

# **Business Climate and FDI Inflow Model**

Drawing inspiration from the study of Nnadozie and Njugana (2011) for the construction of this model, the inflow of FDI into the CEMAC region was taken to be a function of the business climate in the region which itself is



influenced by the ease of doing business, level of corruption, economic freedom enjoyed by investors and the plausibility of governance within the region.

That is:

FDI = f (Doing business index, Corruption perception Index, economic freedom index and the Mo Ibrahim Index of African Governance).

The quantitative presentation of this functional relationship within a random effect model is presented as;

 $LnFDI_{it} = \beta_0 + \beta_1 DBI_{it} + \beta_2 CPI_{it} + \beta_3 EFI_{it} + \beta_4 IIAG_{it} + u_{it} + \varepsilon_{it}$  equation 1

 $\beta_i$  (*i*=0....4) parameters to be estimated

 $FDI_{it}$  is the dependent variable or regressand where i = entity and t = time.

DBI=Doing Business Index; CPI=Corruption Perception Index; EFI= Economic Freedom Index

IIAG= Governance Index;  $u_{it}$  is the between entity error,  $\varepsilon_{it}$  is the within entity error and Ln is the natural log. A priori it is expected that improvements in each of these indices would lead to an increase in the inflow of FDI into a given country and thus into the region as a whole. Thus, there signs of the parameters are such that  $\beta_i$  (i=0....4)>0.

#### **Doing Business Index and FDI Inflow Model**

Again, drawing inspiration from Nnadozie and Njugana (2011) for the construction of this model, the inflow of foreign direct investment (FDI) is a function of Doing Business Indices amongst which are starting a business (SB), dealing with construction permits (DCP), registering property (RP), getting credit (CRED), protecting investors (PROC), paying taxes (PT), trading across borders (TAB), enforcing contracts (ENFC) and resolving insolvency (RESOLV).

That is FDI=f(starting a business, dealing with construction permits, registering property, getting credit, protecting investors, paying taxes, trading across borders, enforcing contracts and resolving insolvency).

This functional relationship is then decomposed in a log-linear econometric form

Where

FDI, SB, DCP, RP, CRED, PROC,PT, TAB, ENFC, RESOLV,  $u_{it}$ ,  $\varepsilon_{it}$ , i, t are as defined earlier above and  $\lambda_0$ ,  $\lambda_1$ ,  $\lambda_2$ ,  $\lambda_3$ ,  $\lambda_4$ ,  $\lambda_5$ ,  $\lambda_6$ ,  $\lambda_7$ ,  $\lambda_8$  and  $\lambda_9$  are parameters to be estimated and are also expected to be positive.

#### 4. Results and Discussions

# 4.1 Summary Statistics

Tables 4 and 5 below present summary statistics of FDI and business climate indicators and summary statistics of components of the Doing Business Index.

Table 4: Summary Statics of FDI and Business Climate Indicators

|          | Statistic | Cameroon  | Chad    | Congo R.  | Gabon   | Equatorial | CAR  | CEMAC   |
|----------|-----------|-----------|---------|-----------|---------|------------|------|---------|
| Variable |           |           |         |           |         | Guinea     |      |         |
| FDI      | Mean      | 462.5714  | 285.142 | 2389.429  | 616     | 1531.857   | 55.2 | 890.047 |
|          | SD        | 259.6035  | 282.151 | 417.4182  | 02.153  | 1119.887   | 35.4 | 957.25  |
| EFI      | Mean      | 52.4625   | 46.05   | 43.8875   | 56.375  | 46.225     | 48.4 | 48.906  |
|          | SD        | 0.7482122 | 1.32017 | 0.9387495 | 1.62194 | 4.420649   | 1.5  | 4.768   |
| CPI      | Mean      | 24.25     | 18.375  | 21.625    | 32.125  | 18.71429   | 22.2 | 22.978  |
|          | SD        | 1.832251  | 2.06587 | 2.263846  | 3.13676 | 0.951189   | 2.43 | 5.113   |
| IIAG     | Mean      | 48.34286  | 32.9857 | 45.0574   | 56.3857 | 41.71429   | 35.0 | 43.25   |
|          | SD        | 4.65577   | 1.95740 | 44.303431 | 8.05200 | 5.533061   | 6.4  | 9.53    |
| DBI      | Mean      | 45.54578  | 31.8234 | 37.89419  | 50.1726 | 45.65594   | 30.2 | 40.231  |
|          | SD        | 4.406651  | 3.25149 | 3.244828  | 2.94120 | 3.07362    | 4.2  | 8.24    |

Source: Computed by Author

From table 4 above, it is observed that the CEMAC region as well as the individual CEMAC countries performed poorly in terms of business climate indicators (with most indicators registering a score of below 50). Despite the poor performance of the CEMAC region, only Gabon registered more than 50 percentage points for EFI, IIAG and DBI. Much effort is still needed in terms of sound policies in order to improve the performance of these indices.



Table 5: Summary Statistics of Components of Doing Business Index

| Index  | statistic | Cameroon | Chad    | CAR    | Equatorial | Gabon  | Congo       | CEMAC   |
|--------|-----------|----------|---------|--------|------------|--------|-------------|---------|
|        |           |          |         |        | Guinea     |        | Brazzaville |         |
| SB     | Mean      | 64.256   | 25.330  | 34.080 | 36.594     | 72.403 | 46.23279    | 46.4831 |
|        | SD        | 14.026   | 8.6766  | 3.6308 | 0.4107     | 2.2919 | 6.665955    | 18.3584 |
| DCP    | Mean      | 61.778   | 66.812  | 65.839 | 71.185     | 67.387 | 67.02554    | 65.8393 |
|        | SD        | 0.2234   | 1.1665  | 6.5075 | 0.039      | 3.8833 | 2.252226    | 6.50753 |
| RP     | Mean      | 41.162   | 45.919  | 48.030 | 54.821     | 50.203 | 47.9269     | 48.0303 |
|        | SD        | 0.5168   | 0       | 5.6767 | 0.001      | 7.0605 | 5.199117    | 5.67677 |
| CRED   | Mean      | 28.281   | 26.25   | 26.25  | 27.5       | 33.437 | 31.875      | 28.9322 |
|        | SD        | 10.542   | 8.50420 | 8.5042 | 9.774      | 13.557 | 14.53137    | 10.9063 |
| PROC   | Mean      | 43.75    | 35.2083 | 40.625 | 38.542     | 35.208 | 35.20833    | 38.0902 |
|        | SD        | 0.178    | 3.58430 | 1.4604 | 3.584      | 3.5843 | 3.584302    | 4.35889 |
| PT     | Mean      | 35.035   | 14.087  | 20.986 | 44.726     | 56.302 | 22.75489    | 32.3155 |
|        | SD        | 1.031    | 2.53704 | 7.3189 | 0.0004     | 0.6612 | 5.422251    | 15.2614 |
| TAB    | Mean      | 9.671    | 13.0341 | 6.2786 | 56.67      | 63.465 | 17.77077    | 34.4818 |
|        | SD        | 1.582    | 1.45071 | 1.8445 | 0 .8251    | 2.1295 | 6.521926    | 23.1662 |
| ENFC   | Mean      | 41.459   | 45.047  | 31.620 | 63.516     | 43.511 | 44.1098     | 44.8774 |
|        | SD        | 0.5391   | 0       | 0      | 0.174      | 0      | 0           | 9.56577 |
| RESOLV | Mean      | 19.972   | 7.03125 | 7.0312 | 0          | 21.313 | 23.80713    | 13.1926 |
|        | SD        | 10.152   | 13.0193 | 13.019 | 0          | 9.2413 | 8.606426    | 13.0524 |

Source: Author

From table 5 above, it is observed that apart from a few indices that registered more than 50 percentage points (dealing with construction permits index for the entire CEMAC region, starting a business index for Cameroon and Gabon, registering property index for Equatorial Guinea and Gabon, paying taxes index for Gabon and trading across borders index for Gabon) all the other indices registered less than 50 percentage points. Much effort is therefore needed in terms of policies in order to improve the performance of these indices.

#### 4.2 FGLS Regression Results

Having paid the necessary attention to panel heteroskedasticity, heterogeneity across entities, and other panel diagnostic tests, two sets of FGLS regression results are obtained based on decision of the Hausman test. Firstly, the FGLS estimates of the business climate in general on FDI and secondly the FGLS estimates of the Doing Business Indices on FDI.

# 4.2.1 FGLS Estimates of Business Climate on FDI

Table 6 below presents the FGLS estimates of the business climate on FDI.

Table 6: FGLS of Business Climate on FDI

| o: 1 GES of Dusiness China |                  |  |
|----------------------------|------------------|--|
| LnFDI                      | Coefficient      |  |
|                            | (Standard Error) |  |
| EFI                        | 0.0278           |  |
|                            | (0.0187)         |  |
| СРІ                        | 0.1721***        |  |
|                            | (0.0171)         |  |
| IBIAG                      | 0.0442***        |  |
|                            | (0.0109)         |  |
| DBI                        | 0.1090***        |  |
|                            | (0.0093)         |  |
| _CONS                      | 5.3847 ***       |  |
| -                          | (0.7587)         |  |
| Wald chi2(4)               | 208.96           |  |
| Prob > chi2                | 0.0000           |  |

Source: Authors (2016)

Note that \*=10%, \*\*=5% and \*\*\*=1% level of significance.

As seen from table 6 above, the results show that the coefficient for economic freedom index is positive which is in accordance with a priori expectation showing that an improvement in economic freedom index will attract more FDI. Precisely, the result shows that when economic freedom index improves by one unit over time, FDI increases by approximately 2.8%. The result is however not statistically significant and in contrast with the results of Ajide and Eregha (2014) who found evidence that economic freedom has a significant impact on FDI in



twelve ECOWAS countries and that of Pearson et al. (2012) who found evidence that economic freedom positively and significantly affects FDI in a panel of 50 states in America. The insignificance of the results can be explained by the fact that there is relatively much government influence in the economies of the CEMAC zone. It is therefore vital that policy makers put in place policies that favour liberalization of their respective economies and reduce administrative bottle-necks.

For corruption perception index, the coefficient is positive as expected indicating that an improvement in corruption perception index in countries of the CEMAC region will attract more FDI. Going by the result, as corruption perception index improves by one unit (indicating that the level of corruption falls over time), the inflow of FDI into the CEMAC region increases by approximately 17.2%. The result is statistically significant and in conformity with the results of Castro and Nunes (2013) who found evidence that the control of corruption attracts FDI and that of Bissoon (2011) who found evidence that the control of corruption has a positive and significant impact on investment attractiveness. Despite the mediocre efforts put in place by governments of the CEMAC region to fight corruption much is still to be done in the domain of fighting corruption. Within a corrupt environment, agents often mitigate the proper functioning of the administration by creating as many complexities and bottlenecks as they can which eventually lead to rent-seeking avenues which act as a deterrent to FDI.

Meanwhile the coefficient of the Ibrahim Index of African Governance is positive implying that an improvement in the governance situation in the CEMAC region attracts more FDI. This is in accordance with a priori expectation. Precisely, as Ibrahim Index of African Governance improves by one unit (indicating that governance improves over time), foreign direct investment increases by 4.4%. The result is statistically significant and in line with the results of Kariuki (2015) who found that high political risks have negative and significant effects on FDI, that of Mijiyawa (2013) who found evidence that politically stable countries attract more FDI and that of Asiedu (2006) who found that political stability and stronger institutions have a positive and significant impact on FDI. The findings are however in contrast to the findings of Bellos and Subasat (2012) who found that poor governance attracts FDI in the context of selected Latin American countries. Despite the modest political stable situation of the region, the political instability in the Central African Republic is a cause of concern for political instability is a serious deterrent to private and foreign investments and destroys the proper functioning of markets. The conflict in the Central African Republic affects other economies of the CEMAC zone since intraregional trade and bilateral trade is greatly affected.

Finally, the coefficient of the doing business index is positive in line with a priori expectation implying that an improvement in the ease of doing business in the CEMAC region attracts more FDI in the region. Specifically, when the doing business index improves by one unit over time, FDI increases by 10.8%. The result is statistically significant and in accordance with the results obtained by Nnadozie and Njugana (2011) who found evidence that sound business rules and regulations are important in attracting foreign direct investment and that of Mottaleb and Kalirajan (2010) who found evidence that good investment rules and regulations will have a positive and significant impact on FDI. Despite the mediocre efforts put in place by the governments of the CEMAC region to facilitate the implementation of business rules and regulations, much effort is still expected from policymakers for profit-minded investors are interested in minimizing risks and maximizing returns.

# 4.2.2 FGLS Estimates of Doing Business Indices on FDI

Table 7 shows the FGLS estimates of the Doing Business Indices on FDI. From table 7, all elasticities of the doing business indices are positive implying that an improvement in each of these indices will attract FDI. Particularly, the coefficient of starting a business index is positive in consonance with a priori expectation showing that an improvement in the ease of starting a business in economies of the CEMAC region will attract more FDI inflows. Precisely, the result shows that when the ease of starting a business improves by one unit (implying businesses become relatively easier to start), FDI increases by approximately 3.2%. In the CEMAC region, mediocre improvements have been made as far as starting a business is concerned. For instance, in Cameroon today, there is the existence of one-stop shops which have helped to reduce the time, procedures as well as cost of establishing a new business.



Table 7: FGLS Estimates of the effect of Doing Business Indices on FDI

| LnFDI        | Coefficient      |
|--------------|------------------|
|              | (Standard Error) |
| SB           | 0.032**          |
|              | (0,013)          |
| DCP          | 0.072***         |
|              | (0.022)          |
| RP           | 0.011            |
|              | (0.010)          |
| CRED         | 0.006            |
|              | (0.004)          |
| PROC         | 0.107***         |
|              | (0.027)          |
| PT           | 0.052***         |
|              | (0.011)          |
| TAB          | 0.006            |
|              | (0.006)          |
| ENFC         | 0.179***         |
|              | (0.0232)         |
| RESOLV       | 0.062***         |
|              | (0.009)          |
| _CONS        | 6.064***         |
|              | (1.454)          |
| Wald chi2(4) | 220.95           |
| Prob > chi2  | 0.0000           |

Source: Authors (2016)

Note that \*=10%, \*\*=5% and \*\*\*=1% level of significance.

The coefficient for dealing with construction permits index is positive. This is in agreement with a priori expectation implying that FDI inflows in the region increases when it is easier to obtain construction permits. Precisely, the result shows that when the index for dealing with construction permits improves by one unit (implying it becomes easier to obtain construction permits), FDI increases by approximately 7.2%. The result is also statistically significant. Investors in the CEMAC region need to build plants, factories, warehouses and companies in order to carry out their business activities, it is therefore important that authorities speed up the process of getting construction permits so as win the confidence of investors.

Again, the results show that the coefficient for registering property is positive. This is in agreement with a priori expectation implying that FDI inflows in the region increases when it is easier to register property. Precisely, the result shows that when the index for registering property improves by one unit (implying it becomes easier to register property), FDI increases by 1.1%. The result is however not statistically significant. In the CEMAC region, it is still difficult to register private property such as land. It is therefore imperative that governments of the region ease the procedures of registering property in order to attract investors.

Also, the results show that the coefficient for getting credit is positive. This is in agreement with a priori expectation implying that FDI inflows in the CEMAC region increases when it is easier to get credit. Precisely, the result shows that when the index for getting credit improves by one unit (implying it becomes easier to get credit), FDI increases by 6 %. The result is however not statistically significant. In most African countries where a high percentage of the population are unemployed or self-employed in the informal sector, it is difficult to get collateral security thereby making access to bank credit (loans) difficult. It is therefore important that policy makers of the CEMAC region relax restrictions on obtaining bank loans for this will boost investments.

In addition, the results show that the coefficient for protecting investors is positive in accordance with a priori expectation implying that FDI inflows in the region increases when investors' rights and property are well protected. Precisely, the result shows that when the index for protecting investors improves by one unit (implying investors' rights and property are protected), FDI increases by 10.7%. The result is statistically significant. Despite efforts been made by authorities to ensure the personal security of individuals and their property, much is still expected of them especially when it comes to the rule of law. It is important that the forces of law and order as well as the judiciary system be fair and transparent so as to win the trust of investors.

Next, the results show that the coefficient for paying taxes is positive in accordance with a priori expectation implying that FDI inflows in the region increases when investors find it easier to pay taxes. Precisely, the result shows that when the index for paying taxes improves by one unit (implying investors find it easier to pay taxes), FDI increases by 5.2%. The result is also statistically significant. Despite the efforts made by tax



officials to make the tax system more transparent, irregularities still persist in the tax allocation and collection system. Investors are usually not fully informed on where to pay their taxes, how they have to pay their taxes and how much to pay as tax depending on their scale of their business operations. If the tax system is made more transparent, this will attract more FDIs in the CEMAC region.

In addition, the results show that the coefficient for trading across borders is positive in accordance with a priori expectation implying that FDI inflows in the region increases when it becomes easier to trade across borders of the CEMAC region. Precisely, the result shows that when the index for trading across borders improves by one unit (implying it becomes easier to trade across borders), FDI increases by 0.6%. The result is however statistically insignificant. In the CEMAC region, despite the institution of the CEMAC passport, the free movement of persons, goods and services is still very restricted thereby causing intra-regional and bilateral trade not very favourable. It is therefore vital that policymakers of the region put in place measures that ease the movement of persons, goods and services for this will encourage trade, investments and promote economic growth.

The coefficient for enforcing contracts index is positive. This is in agreement with a priori expectation showing that an improvement in enforcing contracts index will attract more FDI. Precisely, the result shows that when enforcing contracts index improves by one unit over time, FDI increases by 17.9%. The result is also statistically significant. The difficulty in enforcing contracts is one of the major factors that scare away investments especially FDIs in any economy. When it is difficult to enforce contracts between individual private firms, between private firms and the public sector, this kills trust and increases business costs and business risks causing most firms to abandon business ventures. It is therefore important that policymakers of the CEMAC region put in place measures that enforce contracts so as to give investors the guarantee that their investments are secure.

Lastly, the coefficient for resolving insolvency index is positive. This is in agreement with a priori expectation showing that an improvement in resolving insolvency index will attract more FDI. Precisely, the result shows that when the index for resolving insolvency improves by one unit over time (it becomes easier to resolve insolvency), FDI increases by 6.2%. The result is statistically significant. Authorities of the CEMAC region should put in place support structures that guide insolvent firms such as providing them with loans so they kick-start their operations again or through acquisitions and mergers. This will act as a motivation for investors to carry out business risks.

The above results obtained for the ease of doing business indices are in conformity with the results obtained by Bayraktar (2013) and that of Morris and Aziz (2011) who found evidence that countries with better records of "doing business" indices (starting a business, dealing with construction permits, registering property, getting credit, protecting investors, paying taxes, trading across borders and resolving insolvency) tend to attract more foreign direct investment.

### 5. Policy Recommendations

Based on the results of the study, it is vital that governments of the CEMAC region put in place structures, laws and policies that ameliorate the business climate. Specifically, these structures, laws and policies should have as main objectives in improving business rules and regulations, fighting corruption, promoting economic freedom and promoting good governance.

Firstly, policy makers of the CEMAC region should ensure that they put in place structures, laws and policies that ease the procedures of starting a business, dealing with construction permits, registering property, getting credit, paying taxes and resolving insolvency. Also measures should be implemented which protect investors such as protecting them from bankruptcy or unfair trade practices and unfair competition. Also measures should be put in place that ease the process of trading across borders such as eliminating tariffs and allowing the free movement of goods and services. Measures that enforce contracts between economic agents should also be implemented in a bid to attract more FDI.

In addition, policymakers of the CEMAC region should put in place structures, laws and policies that fight corruption. Severe disciplinary sanctions should be handed on to corrupt economic agents. Policy makers should also carry out sensitization programs and workshops that educate economic agents on the negative effects of corruption on the economic well being of an economy.

Furthermore, policy makers of the CEMAC region should put in place structures, laws and policies that promote economic freedom. These measures should be aimed at protecting property rights, promoting fiscal freedom, limiting excessive government intervention in favour of a more liberal free market economy, promoting business freedom, promoting labour freedom, promoting monetary freedom, promoting trade freedom, promoting investment freedom and promoting financial freedom.

Lastly, policy makers should put in place structures, laws and policies that promote good governance. Such measures include an independent and strong judiciary, separation of powers between the executive, the judiciary and legislative, promoting democracy, promoting social justice and promoting human rights amongst others.



# 6. Conclusion

The business climate has a significant impact on foreign direct investment in the CEMAC region. Despite the existing measures put in place by governments of the CEMAC region to ameliorate the business climate, more still needs to be done especially in the level of implementation of policies. It is therefore imperative that the various economic agents of the CEMAC region ensure a favourable business environment or investment climate for this will go a long way in attracting foreign direct investment thereby leading to economic growth and development through the multiplier effect.

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